Keviews and Kibliographical Aotices.

The decay and final extinction of aristocracies.1 A subject of fresh interest has lately arisen in the scientific world, attracted the attention of several able writers, and caused considerable comment. We say lately advisedly, for the subject in itself is not a new one, nor are its effects more pronounced now than in past years, but until Dr. Jacoby's work on selection made its appearance a short time ago, the matter was regarded from a much more restricted point of view. We refer to the tendency toward degeneration, and the subsequent gradual extinction of such families as have attained to eminence or occupied positions of high rank in various countries throughout the world. the existence of this strange peculiarity is both remarkable and interesting cannot be denied, and it seems extraordinary that nothing has been said about it till of late years when we consider that the fact was evidently well known to the ancients. Much, it is true, has been written about the degeneration of the entire human species, in the tendency continually manifested to deviate from the original stock, but the decay, as confined to a particular social class, seems to have escaped attention hitherto. author, who has apparently made a masterly study of the subject, notwithstanding that his theory as to the absolute cause of this deterioration is somewhat open to criticism, affirms that families degenerate in just proportion to their elevation, and that those who, from a low position, have been raised to a high one, enjoy their privileges only temporarily, and after a certain time has elapsed, disappear.

If we go back to the earliest stages of the world's history, to those days when aristocracies were first instituted, we find the

¹Études sur la sélection dans ses rapports avec l'heredité chez l'homme. Par le Dr. Paul Jacoby, Paris, 1881, 8vo, pp. 608.

rule to be equally applicable. During the prosperous days of the Roman Empire, the nobility, to preserve it from extinction, had constantly to be replenished from the lower orders of the people. Throughout the reign of Julius Cæsar and that of Augustus, an immense number of plebeians were ennobled, and yet scarcely fifty years later, the Emperor Claudius was forced to create a new aristocracy. In many cases the degeneration was so rapid, that some families became extinct with the third and fourth generations, while those extending beyond a fifth were very rare. Such facts as these, though insignificant and perhaps valueless to the historian are of the utmost importance to the scientist, and although the subject is exceedingly complicated and too involved to be pursued minutely in all its details, a few observations upon its principal points of consequence, will not, I trust, be unworthy of consideration.

By following attentively the history of numerous European dynasties, extensively discussed by Jacoby, we obtain a mass of curious and interesting facts tending to demonstrate the remarkable swiftness with which these families have declined and finally become extinct in every branch. A few of these may be mentioned by way of example.

The dynasty of Savoy, founded by Humbert about the year 1000, decayed gradually from the second generation and became extinct in 1831. This is one of the longest on record, and it is astonishing that it endured as long as it did, inasmuch as the entire family was characterized by frightful debauchery, epilepsy, and weak intellectual development, and many of its members were childless or else died in infancy. Dr. Jacoby gives a reason for the continuation of this dynasty, of which we shall speak later.

The famous Medici family, after the second or third generation had been reached, was distinguished by a complication of nervous disorders, debauchery of the worst kind, intense cruelty, cowardice, and every possible species of infamy, combined with premature death. One branch became extinct with the celebrated Catherine de Medici, whose history is too well known to require any comment here. The second branch died out with Cosimo III, a confirmed lunatic.

The House of Burgundy, which ascended the Portuguese throne in 1095, disappeared completely in all its branches at the expiration of two hundred years. This family, like those just mentioned, was composed of debauchees and ruffians, among whom an occasional instance of exaggerated melancholic piety made itself apparent.

In this connection, Dr. Ireland's interesting paper on "The History of the Hereditary Neurosis of the Royal Family of Spain," cannot be overlooked. John II, of Castile, and Isabella, of Portugal, were the founders of this family. The former was "weak almost to imbecility." The latter, toward the close of her life, was insane for many years. Here we have hereditary neurosis making itself apparent in a family for three hundred and fifty years, occasionally passing over a generation, accompanied by insanity, epilepsy, hypochondria, melancholia, suicide, and imbecility. As Dr. Ireland remarks, a part of this tendency was evidently the result, not of the direct hereditary influence, but of the close intermarriages with families of the same stock. Dr. Jacoby takes up the subject of this family at an earlier period of its history than does Dr. Ireland, and shows how deeply tainted each of the parent roots was with tendency to extinction.

The decay of other celebrated continental families, the Valois, the Houses of Orleans and Condé, and the French Bourbons might be traced in the same manner, did space permit. It may be said, however, that the degeneration, as in the preceding cases, was, when once fully established, rapid and unmistakable, while the final member, with whom the family became extinct, was generally totally depraved, addicted to atrocious vices, displaying propensities of the most monstrous character, or else was a simpering idiot. In regard to the Bourbon family mentioned above, it should be stated that the last member, the Count de Chambord, still remains, but is childless.

Let us glance for a moment at the English throne, and we shall find no deviation from the inevitable rule. We are truly amazed when we come to consider the facts as they actually stand. From the reign of Edward II (1307), until George I ascended the throne, four centuries in all, England expended and wiped out six dynasties. The Plantagenets, the Lancasters, the Houses of York, Tudor, Stuart, and Orange. All these families gradually became extinct, and as to the Hanoverians, who succeeded them, it is superfluous to recall their lamentable and disgraceful history, characterized as it is by the most inferior intellectual development, and the most flagrant, daring vices.

"Such," says Dr. Jacoby, "is the sad story of the English throne, and," he adds, significantly, "its continual decay and degeneration cannot surely be denied by any one who is familiar

¹ Journal of Mental Science, July, 1879, p. 184.

with the dynasty from the ascension of the Georges to the throne, to the present day." (P. 430.)

If we leave the dynasties and reigning families of Europe, and turn our attention simply to the nobility and aristocracy, we perceive identical indications of declension and final extinction within a comparatively short period. As has been said before, the rapid disappearance of eminent aristocratic families in the Roman empire necessitated the constant creation of nobles from the people. In England very few of the immense number of baronetcies made by James I were perpetuated for any length of time. They degenerated with such surprising rapidity that, although fifteen hundred and twenty-seven baronets were created after the year 1611, there were only six hundred and twenty-six in the year 1819, and out of this number thirty alone dated from 1611. This fact seems almost incredible, and the following one Fifty-three lords temporal were conis no less remarkable. voked for the parliamentary session in 1457, and yet Henry VII could only discover twenty-nine in the year 1486, and of these several had recently been admitted to the peerage.

In ancient Greece there were more than eight hundred Spartan nobles in the year 480 B. C. But in Xenophon's time only fifty could be found, one family after another having become extinct.

Brought face to face with facts such as these, facts which have been carefully analyzed and tested, the tendency toward degeneracy manifested by families occupying a high social position can no longer remain a subject of scepticism. But we naturally conclude there must be some reason for this striking peculiarity, some paramount cause which we can grasp, as it were, and examine minutely. We look for some theory concerning the determining reason of the phenomenon, and in answer to our expectations a number of dogmas and opinions have been expressed, most of them dealing principally with degeneration as applied to humanity taken as a whole; that of Dr. Jacoby, however, and one or two others, treat of degeneration as we are discussing it here, solely in connection with social status. It has been affirmed that such conditions as are favorable to the maintenance and progress of the individual are utterly opposed to the perpetuation of the species, and that, for example, the greater the advancement of civilization and luxury, the less the population is increased. That an antagonism should exist between the individual and the species which, amid certain favorable conditions, is exceedingly pronounced, while when subject to adverse influences, such as pri-

vation, want of culture, etc., it is not perceptible, seems difficult to comprehend. There is absolutely nothing to sustain the theory that unfavorable conditions are necessary to the full development of talent and other qualities of a high order. On this point, however, there is such an endless variation of opinion that it seems needless to discuss it. Dr. Jacoby's theory differs from others essentially, inasmuch as it is totally removed from any thing pertaining to surrounding influences, and deals entirely with natural selection. "The sudden extinction of noble and aristocratic families," he says, "is wholly and entirely due to the exclusiveness of their position. Without contracting precisely consanguineous alliances, they, nevertheless, generally marry those who belong to their own particular set or circle, who have been educated and brought up amid similar surroundings and subjected to identical influences. The neurotic element is thus largely developed, and increases with immense rapidity. It has been seen that a family threatened with complete extinction, owing to apparently exhausted vitality, can effect an interruption in the degeneration by contracting marriage between one of its members and a person belonging to an entirely different caste."

The dynasty of Savoy, previously mentioned as being one of the longest on record, owes its extended vitality, according to Dr. Jacoby, solely to a marriage contracted between Amadeus III, one of its principal members, and a certain nameless and insignificant woman whose antecedents were directly opposed to his own. "It is obvious," continues Dr. Jacoby, "that if this theory be the correct one, it should hold good in all cases of social selection. Degeneration will surely make its appearance under these conditions, regardless of the sphere in which the selection occurs or the peculiar influences immediately surrounding it."

We cannot but admire the painstaking and masterly researches which have been made in regard to this highly important and interesting subject, but no theory, as yet, appears to furnish a satisfactory solution of the problem concerning the marked want of vitality in the upper classes. That social selection is an important factor in the matter is doubtless true, but it would be absurd to suppose that there are no other influences at work upon it. If we come to consider the lower classes and examine the hospitals, do we not find greater evidences of degeneration than in the upper classes? As there can be no question of social selection here, other influences must be the cause. Also, where dynasties and noble families are concerned, it is an easy matter to trace ances-

tors and discover their distinguishing characteristics, but it should be borne in mind that this privilege is not granted to us by the lower classes. Were the facilities for obtaining family histories equal in the two castes, similar revelations as to degeneration would probably be forthcoming.

"The immense increase not only of mental aberration but all other abnormal states closely allied to adverse physical and moral conditions in the human species," says a prominent scientific writer, "has forcibly attracted my attention of late. Wherever I go, I hear physicians complain of the great augmentation of insanity, paralysis, and epilepsy combined with a perceptible weakening of intellectual and physical force which we are apparently unable to arrest. To these affections may be added hysteria, hypochondria, and suicidal tendency which lately have attacked workmen, day laborers, and the inhabitants of country villages to an alarming extent. This is the more surprising as these maladies have been considered hitherto to be confined exclusively to the upper and wealthy classes."

We can attribute this proclivity to deterioration to various causes, such as habitual intoxication for instance, unfavorable hygienic conditions, unhealthy occupations, as working in mines or in badly ventilated factories, the indiscriminate use of opium, insufficient or improper nourishment, and a thousand other complex circumstances which tend to produce adverse constitutional modifications.

But, it may be asked, if the excessive use of spirituous liquors observed in the upper classes to a considerable extent, is an impediment to the continuation of the species, why should the lower orders of the people whose drunkenness and exceeding debauchery are almost proverbial, multiply to such an enormous extent?

In reply to this question, we may inquire in our turn whether they do multiply as is supposed, and whether degeneration and sudden arrest of development are not quite as marked in one case as in the other. The following instance which has come under my own observation may help to demonstrate the fact that deterioration is the inevitable effect of certain causes independently of social caste.

An Irishwoman, living in New York, married a man of her own class, both of them being at the time perfectly healthy. No in-

¹ Morel: Traité des dégénérescences physiques, intellectuelles, et morales de l'espéce humaine, Paris, 1857.

sanity, epilepsy, or other nervous affection existed among the ancestors on either side as far as could be ascertained. The husband, however, shortly after his marriage became addicted to occasional fits of intoxication, although he could hardly be termed a habitual drunkard. Sometimes he would remain drunk for ten days at a time, but when sober again he would often stay so for a considerable period. Nine children were born of this marriage. The eldest is now a grown man, strong and healthy. The second is also of adult age and sound constitution. The third died at the age of twelve months, and twins which succeeded this child also died at an early age. Next came an imbecile dwarf followed by a second imbecile dwarf. Then a girl was born who is healthy and quite intelligent. A third idiotic dwarf was the last child.

The mother asserts that all three of these idiots were very fine children up to the age of three years, but that they stopped growing at that period. At present, Johnny, the eldest, is eighteen years of age. His appearance is idiotic in the extreme, and when he plays it is as a child of two or three years old would amuse himself. He can speak but few words, and it has been found impossible to teach him any thing, even his letters. He strenuously objects to being dressed like a boy, and insists upon wearing a frock. Joe, the second imbecile, is fifteen years of age. mind is very feeble, but he is unmistakably more intelligent than his brother. He talks a little more and his amusements are of a higher order. James, the third dwarf, is the most intelligent of the group. His articulation is more distinct than that of either of the others, and his expression is decidedly more intellectual. peculiarity of these idiots is the fact that all three possess the Mongolian-like features which is a common type with the crétins of the Alps and Pyrenees. The eyes are small and set angularly in their sockets. The cheek-bones are high, and the complexion is similar to that of the Tartar race. People who have seen the photographs of this strange group of beings have asked if they were not Japanese.1

In this case the peculiar arrest of development, intellectually and physically, is clearly due to the father's excessive use of alcoholic liquors, and similar evidences of degeneration can be remarked wherever intoxication is habitual with either father or mother.

¹ See "A Lecture on Arrest of Development," by W. A. Hammond, M.D., delivered at the University of the City of New York, March 13, 1879.—Neurological Contributions, vol. i, No. 1.

Dr. Morel mentions seven children whose father died of general paralysis resulting from alcoholism. These children were characterized in infancy by terrible convulsions, which, as they grew older, were followed by the most inferior intellectual development, hypochondria, mania, and hysteria. So faintly defined was the intelligence of all seven that they could neither acquire any sort of information nor apply themselves to any thing whatever. One or two were deformed, and some became hopeless idiots at an adult age.

In regard to defective nutrition combined with the lymphatic and scrofulous constitutions which predominate in certain countries, several examples have been forthcoming. One is that of a woman aged fifty-six. Her tendencies were of the most vicious character, resulting ultimately in acute mania which necessitated her removal to an asylum. Another is a man twenty-three years of age. All the members of his family have become either scrofulous or idiotic. Isidore, the one in question, is the most degraded type of a human being. He has not even the instincts of a beast, and he is so hideously deformed that locomotion is impossible.

Concerning degeneration as resulting from the peculiar construction of the soil, unhealthy dwelling-places in large cities, etc., Dr. Morel furnishes the following examples. Zoe, fifty-two years of age, was born in Paris, and her father and grandfather were natives of the same place. She was one of a numerous family of children, but all of them except herself, died at a very early age. Zoe was a semi-crétin, such as is frequently to be met with in the degenerating conditions of unhealthy lodgings in the large centres of population. Her ideas were of the most restricted order, and her speech almost inarticulate. She was able to occupy herself with such employments as required merely simple automatism on her part, but she was incapable of instruction beyond a circumscribed limit.

Victorine, twenty-one years of age, was a native of a country where goitre is very prevalent. This affection is independent of crétinism, but often accompanies it. Victorine's intelligence was extremely obtuse. Her form was dwarfish and badly shaped. She presented, in short, complete evidences of degeneration.

So far as aristocracies are concerned, some writers do not consider abuse of spirituous liquors to be of much consequence. The English nobility and upper classes, it has been stoutly asserted, indulge in brandy, beer, wine, etc., to a great extent, and

degeneration in these circles is, no doubt, wonderfully rapid, but then the Italian aristocracy decays equally fast, notwith-standing the fact that it is an abstemious aristocracy in which intoxication is almost unheard of. In ancient Greece, it is further stated, none were more frugal than the Spartans, while the Roman nobles were celebrated for the simplicity of their living. These, however, were the very people who decayed the most rapidly. How is this to be accounted for?

In these latter cases, we may say unhesitatingly, some other deteriorating influences were undoubtedly at work, apart from alcoholic excess. The unhealthy atmosphere which pervades the generality of Italian cities is too well known to require special mention, and the prevalence of malarial fevers and other conditions opposed to the proper maintenance of the nation are daily brought before our notice.

By carefully examining the minute statistics furnished it will be seen that in every dynasty or noble family mentioned as degenerating and becoming extinct, debauchery, vice, and depravity were prominent features almost from the very beginning. These distinct evidences of deterioration have been attributed to social selection, but why should they not be the inevitable effects of certain other causes, such as immorality, for instance, combined with intoxication, insalubrious dwellings, improper diet, and an unhealthy atmosphere?

"No matter what country is in question," says Dr. Morel, "wherever the consequences of alcoholism or other excesses are carefully investigated independently of the particular degree of civilization in which they occur, the same deplorable facts make themselves apparent. And these facts," he continues, "are childless marriages, premature death, idiocy, suicidal tendencies, epilepsy, etc."

Thus we have a variety of degenerating influences continually at work upon all classes and undermining vitality; influences of which, so far as aristocracies are concerned, social selection is but one of the factors that go to make up the whole.

While, therefore, it cannot be denied that this last-named agent may predominate in the decay and subsequent extinction of aristocracies, it can hardly be claimed that it is the sole cause, it being rather one of several causes all conducing to the same end.

Without wishing in the least to cast any reflection upon the theory of selection, which indeed has been properly determined so far as it goes, it would seem, nevertheless, that the fact has been "viewed unequally," as a scientific writer expresses it, and that there is a marked fallacy in this otherwise admirable argument.

We have only considered one of the many interesting questions discussed by Dr. Jacoby. His work is of especial interest to physicians, and we therefore commend it to their attention as containing a vast amount of valuable information from which the author has constructed theories of the most striking, but at the same time apparently well-founded character.

Cerebral hyperæmia: does it exist? A consideration of some views of Dr. William A. Hammond. By C. B. BUCKLEY, B.A., M.D., formerly Superintendent of Haydock Lodge Asylum, England. New York: G. P. Putnam's Sons, 1882.

We were at first somewhat surprised that the Messrs. Putnam should have been instrumental in giving to the public a work which is nothing, unless it be a virulent attack on a gentleman with whom they are on terms of personal friendship, as well as being the publishers of several of his books, among them, by the way, the very one against which and its author Dr. Buckley has leveled his artillery of invective and misrepresentation. however, we were informed that they had at once submitted the manuscript, with the concurrence of Dr. Buckley's agent, to Dr. Hammond for his opinion, and that he had returned it with the report that "there was nothing in it of any consequence; that, to be sure, it was abusive, but that so far as he was concerned, he did not care whether they published it or not," we came to the conclusion that Dr. Hammond was either "spoiling for a fight," like the gentleman at the Irish fair, who had been long waiting for some one to tread on the tail of his coat, or that he held Dr. Buckley's views of himself and the subject of cerebral hyperæmia as of no importance one way or the other.

It is scarcely worth our while to discuss the matter from Dr. Buckley's standpoint, but there are one or two things about his book which strike us very unpleasantly. He constantly misquotes Dr. Hammond; he misinterprets his words, and this in matters about which there can be no mistake; and he draws conclusions from what Dr. Hammond says which the text does not warrant. In the first place, he takes the unwarrantable liberty of italicizing Dr. Hammond's words to suit his own ideas. He thus lays stress on expressions to which Dr. Hammond does not attribute any special significance. This is certainly not in accordance with the